Mathematics and History together Time Travels at Kisumu Railway Station, Kenya

The goal of the Kisumu Time Travels was to Discover how Mathematics Education can be used in the Historic Environment; Learn local history of Kisumu and the connection to today's society and also Connect university, museum and schools in Kisumu municipality.

The key questions were based on the concept of communication: What is the best means of transport – Cars, trains, ships, airplanes? How do we improve communication between different groups of people in Kisumu?

Historical Account of Kisumu

The Kenya-Uganda railway arrived at Port Florence (Kisumu) around 1901, where steamships would carry goods through Lake Victoria to Uganda. A new railway station opened in 1972, the same year that the municipal boundaries were extended. Kisumu has been a racially segregated town since it was first built in 1903, with clear demarcation of African, Indian and European areas.

The Time Travel Scenario, Kisumu railway station 1973

The old station is too small and cannot facilitate the growing amount of goods and passengers. A new station has been built and the first train is expected from Nairobi into the new station today. The East African Railways and Harbours Corporation has called for extra workers, young and old, to finalize the last preparations.

After several preparing workshops, two similar Time Travels have been organized in 2014, by teachers from Kisumu municipality schools, Maseno University, Kisumu museum, Linnaeus University and Kalmar county museum, about 55 learners and 20 adults in each Time Travel. The Time Travel provided an opportunity for learners to explore Mathematical ideas in a historical perspective:

- Concepts on speed, time and distance through the movement of the train from Nairobi to Kisumu

- Buying and selling activities to conceptualize and work out profits; exchange of currencies; Economic and

racial differences in the society

- Weighing of parcels and selling and buying of tickets

- Preparing decorations with key concepts in geometry like shapes, area, surface area and patterns.

Lessons Learned

The Time Travel activity opened up communication channels between schools, museums and universities, showing clearly that the Time Travel method is able to bridge existing gaps in society and within a community. Thematic approach which is advocated for by the Time Travel activities brings collaborative learning and teaching in the sense that a math teacher has a lot to borrow from other subject teachers.

The best outcome of the Time Travel activities was that the university, museum and school teachers agreed to explore the possibility of starting a 'Bridging Ages- Western Kenya Chapter'.

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